

Application No.: 10/824,165
Amendment Dated February 17, 2009
Reply to Office Action of October 14, 2008
Attorney Docket No.: ERN-TSH-001

Remarks/Arguments

Claims 21-25 are pending in the application. Claims 21 and 24 are in independent form. Claims 1-12 were previously withdrawn and are now cancelled. Claims 13-20 were previously cancelled. Claims 21-25 stand rejected.

Examiner Interview

Applicant thanks the Examiner for courtesies rendered to his representative in the January 14, 2009, personal interview. Participating in the interview were Primary Examiner Ryan J. Walters, Examiner David Bryant, applicant's representative Michael O. Scheinberg, and Timothy Kardosz, one of the applicants. Claims 21 and 24 were discussed in relation to U.S. Patent No. 5,715,642 to Buers ("Buers"). Applicant and his representative explained that the proposed amendments during the interview distinguished from Buers. Examiners Walters and Bryant advised Applicant and his representative to file an amendment with more specific limitations.

Applicant and his representative again thank the Examiners for their time and courtesies in participating in the interview. Further, Applicant has amended the claims and arguments as reflected in this Response.

Drawing Objections Under 37 CFR § 184(p)(5)

The drawings are objected to because reference numeral 180 of FIG. 1B is not mentioned in the description. Paragraph [1019] of the specification is amended so that the specification is consistent with the drawings.

Claim Objections

Claim 24 is amended to correct for the informality objected to.

Claim Rejections Under 35 USC § 112

Claim 21-25 are rejected under 35 USC § 112, second paragraph, as being indefinite. Claim 21 is amended to delete the term "data" after channel.

Claim Rejections Under 35 USC § 102

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Claims 21-23 and 25 stand rejected under 35 USC § 102 as being anticipated by Buers.

Buers teaches generic studs that can be cut in the field to a desired length and that include multiple alignment marks so that they can be assembled into many different truss designs. In amended claim 21, data is generated identifying the specific studs required for a specific truss design. The studs are then formed on a roll forming machine to the specified dimensions and alignment marks for assembling the studs into specific locations of the specific design are formed on the studs.

Buers does not teach: “generating data identifying a plurality of structural stud members and the arrangement of those studs in accordance with a truss design, the structural stud members to be formed from a roll forming machine, the data for each stud including stud dimensions and one or more locations for an alignment guide” and does not teach “forming using dimensions specified by the data a first ‘C’-channel stud using a roll-forming machine, the first “C” channel stud including a web, a flange, and a lip, the length and dimension” and “forming using the roll-forming machine in the first ‘C’ channel data a first alignment feature based on the locations in the data.”

The goal of Buers is to reduce the number of different studs that need to be stocked. Thus, studs of standard lengths are cut in the field and each has multiple alignment holes so that they can be aligned in different configurations. Buers states: “When two structural beams 60 exhibit the hole pattern 72, the beams can be easily connected together at varying angles, as will be described below.” Col. 5, lines 55-59. Applicants submit that Buers teaches against a system in which each stud is custom made at the roll forming machine for a specific location in the truss. The prior art described by Buers does not custom make studs for specific positions in the truss. The prior art includes generic studs that are cut to length in the field, but that are of different gauges and type (col. 2, lines 22-24) or that use different standard connections for different roof pitches (col. 2, lines 55-59).

“The wide variety of gauges and types of structural elements used in erecting a steel-frame structure also creates an inventory control headache for the builder. Even when the correct amounts of the proper shaped members and gauges are purchased, it is common for errors to occur in the field and, specifically, for the wrong gauge material to be cut and even erected.” Col. 2, 22-28.

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Buers teaches that: "There is needed an improved steel-framing system which will permit the reduction in the number of component parts. . ." Col. 2, lines 64-66. Whereas claim 21 teaches a system in which each stud is formed on a rolling machine to a length for a specific truss design, Buers' goal is to make holes on a generic stud that can be cut in the field so as to be used in different designs, thereby reducing inventory of different kinds of studs.

Applicants submit that claims 22, 23 and 25 are patentable for reasons described above with respect to parent claim 21.

An embodiment of the present invention is commercially implemented as the "Z-Align" system. Without the Z-Align system, trusses are built utilizing jigs and other means of control to maintain consistency from one truss to another. A platform of wood or an area on a slab of concrete is created or cleared so that all trusses being built will fit in this area. After setting a flat surface to build, the builder uses the shop drawing provided to transfer the information and dimensions onto the flat area. This is done by manually measuring and utilizing a "chalk line" to draw-out and create the truss profile that is described in the shop drawing. After completion, the builder will then attach angle iron along the outside perimeters of the truss profile thus creating a "stop" or continuous beerier along the profile. This will allow the builder to fabricate multiple trusses while ensuring that all are built identical to one another.

Material is normally not cut to length. Most steel suppliers offer material in stock lengths that the end user has to cut which is time consuming and creates a lot of waste. Any given truss job can have hundreds of different lengths. The builder is required to cut every piece manually while trying to maintain good quality control and eliminate human error. This process can be very overwhelming. After every piece is cut and marked, the builder can now layout the pieces to start fabricating trusses.

Most truss projects have multiple truss profiles that are necessary to produce the roof system required. Building a jig to produce trusses can be very time consuming but when multiple truss profiles are necessary, the task is that much more difficult. Every truss within a job needs to be produced inside a jig to ensure good quality control and continuous consistency from one to another. This means that a jig can frequently be produced, taken apart and produce in a slightly different configuration to build the next corresponding truss. The process is slow and can

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overwhelm even the most experienced truss builders.

With the Z-Align system, all the leg work is done for the builder. Pieces are cut to length, labeled, bundled and punched with an alignment hole into each truss package. The material is ready for assemble when received. Although a flat surface to fabricate trusses is still necessary, the need for jig building, measuring and setting angle iron is not. You simply layout the pieces in their corresponding order according to the shop drawings, align the pre-punched holes and the truss profile is created for you. All the necessary measuring, cutting, chalking, labeling, laying iron or stops or possible human error are eliminated thus providing the end client with a higher quality truss in a more productive manner.

Claim Rejections Under 35 USC § 103

Claim 24 stands rejected under 35 USC § 103(a) as being unpatentable over Buers (US 5,715,642).

Claim 24 is rewritten into independent form. The Examiner states Buers does not teach assembly tags including information about assembling the stud to form a truss, but that "it is known in the art to apply labels or information on components identifying how to assemble components or where the components should be placed in relation to other components." October 14, 008 Office Action, p. 6.

As described above with respect to amended claim 21, Buers teaches minimizing inventory by using a standard stud. To alter Buers to include a label on each stud that describes "information about assembling the stud to form the truss" would foil the purpose of Buers, since Buers would then need to inventory additional studs having different labels.

Applicants submit that the proposed modification would render Buers unsatisfactory for its intended purpose of reducing stud inventory, and the proposed modification is improper. MPEP 2143.01V.

New claims 26-29 are supported in the specification in paragraph [1022]. New claim 26 specifies that the label includes information "that specifies the connections of the stud." As described above, Buers desires a generic stud to reduce inventory and so teaches away from a stud that specifies its position in a truss. Claim 27 states assembly tag that that specifies the truss in

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which the stud is to be used. As described above, the use of a stud identified for a specific truss is counter to the principals of Buers, who wants a generic stud to reduce inventory. Similarly, in claim 28, the label made by the roll forming machine specifies the length of the stud, and claim 29 specified the number of screws to be used. Buers would not want to stock inventory for otherwise identical studs that use different number of screws.

New claim 30 is supported in the specific in paragraphs [1016] and [1019] and FIG. 1A. Claim 29 includes forming additional studs to construct a truss.

New claim 31 includes a single alignment hole at each end of the truss, the alignment hole being positioned for aligning with the connecting stud in the truss. Claim 31 states that at least one of the two alignment holes are offset from a centerline of the stud. Claim 31 is supported in paragraph [1017] and in FIG. 1C. Claim 32 is supported in paragraph [1018]

CONCLUSION

It is believed that all of the pending issues have been addressed. However, the absence of a reply to a specific rejection/objection, issue, or comment does not signify agreement with or concession of the rejection/objection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this reply should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants submit that all claims in the application are now in condition for allowance, and Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Further, Applicants believe that all fee(s) associated with filing this Response were paid at the time of filing. However, if the Commissioner determines that additional fee(s) are required, Applicants request that such fees be charged to Deposit Account 50-1635.


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Respectfully submitted,

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